

MINUTES
CHIEF OF ENGINEERS' ENVIRONMENTAL ADVISORY BOARD MEETING
New Orleans, Louisiana
6 December 2006

1. The Chief of Engineers, **LTG Carl Strock**, called the Environmental Advisory Board (EAB) to order at 0900 hours, 6 December 2006 at the Wyndham New Orleans at Canal Place, New Orleans, Louisiana. The following EAB members were present:

- **Mr. Kenneth Babcock**, Director of Operations, Ducks Unlimited Southern Regional Office;
- **Dr. George Crozier**, Executive Director, Dauphin Island Sea Lab;
- **Dr. Michael Donahue**, Vice President, URS Corporation, Water Resources and Environmental Services;
- **Dr. Stephen Farber**, Director, Environmental Management and Policy Program, University of Pittsburgh Graduate School of Public and International Affairs;
- **Dr. Courtney Hackney**, Professor, Department of Biology and Marine Biology, University of North Carolina at Wilmington;
- **Dr. Theodore Hullar**, Cornell University;
- **Dr. G. Mathias Kondolf**, Associate Professor, Department of Landscape Architecture and Environmental Planning, University of California at Berkley; and,
- **Dr. Denise Reed**, Professor, Department of Earth and Environmental Science, University of New Orleans.

Also present were: **MG Don Riley**, Director of Civil Works; **Mr. Tom Waters**, Chief, Civil Works Planning and Policy, **Ms. Pat Rivers**, Chief, Southwestern Division Regional Integration Team and of the Environment Community of Practice (CoP); and **Ms. Rennie Sherman**, Executive Secretary for the EAB.

2. WELCOMING REMARKS

Ms. Sherman noted the meeting was being conducted under Federal Advisory Committee Act (FACA) rules.

LTG Strock welcomed everyone and emphasized that the business meeting of the EAB was open to the public. He thanked the New Orleans District staff who helped organize and host the EAB meeting. He reaffirmed his commitment to this process and this Board, saying that he finds the Board captivating, because environmental issues and policy are never static. He continued saying that he understood that the Board would be discussing Ecosystem Restoration, a growing interest for the Corps, as well as important in New Orleans recovery and for other communities across the nation.

LTG Strock recognized the two departing members of the Board – Drs Hullar and Donahue. He thanked them for their service and presented them each with a Commander's Coin.

Mr. Babcock, Board Chairman also thanked the New Orleans District for good briefings on New Orleans and Gulf Coast recovery efforts. He said that the EAB also had an aerial reconnaissance of the New Orleans area including important wetlands on 4 December. He introduced members of the Board and asked Dr. Crozier to present the EAB concerns regarding the need for an Ecosystem Restoration Center in the Corps.

3. DISCUSSION ON ECOSYSTEM RESTORATION TOPICS

Dr. Crozier said that the EAB had made a recommendation that the Corps create an Ecosystem Restoration Center in an earlier letter to LTG Strock (dated 25 September 2006). The recommendation resulted from an EAB examination of the Corps implementation of adaptive management. The EAB believed very strongly that the Corps needed the Center as a “flagship” to help Corps become a leader. The Center could assist Corps implementation of ecosystem restoration in collaboration with academia and other agencies. This suggestion was affirmed by Dr. Hullar

Dr. Kondolf said the Center could also serve as a training center for the Corps. Center staff could also assist the Corps field offices in project planning and management.

Dr. Donahue stated that the EAB Ecosystem Restoration Center recommendation is also consistent with recommendations presented in the EAB Paper “Ecosystem Authority Gap Analysis”. The Center would be an important interface with public and external ecosystem restoration interests.

Dr. Hackney pointed out that no organization is better suited than the Corps to take on role of leadership in ecosystem restoration with its’ Congressional authorities for projects and its General Investigation studies

Dr. Hullar said that the Center could be a clearing house for information and could also facilitate growth of Corps esteem and standing in the field ecosystem restoration.

Mr. Babcock stated that the environmental conservation community is no longer program centric, but interested in a broader and collaborative watershed and regional management approach to conservation. The Center could allow the Corps to bring all conservation management stakeholders and interested parties together.

LTG Strock responded that he would ask his staff to address how best to implement such a recommendation within existing Corps authorities and turned to Ms. Rivers and MG Riley.

Ms. Rivers, as head of Environmental Community of Practice (CoP), said she dealt with both large projects like the Everglades and smaller projects. Designating a leader or champion for the Center will be critical. The leader would need credentials that are recognized throughout ecosystem restoration community. She also said that a distinction must be made between ecosystem restoration and environmental protection. The timeframe for addressing the recommendation of a Center is open, but recommended starting with the designating of an environmental leader within the Corps for Ecosystem Restoration.

MG Riley said that the Corps has a Planning Center of Expertise (CX) for ecosystem restoration. The Center recommendation is clearly looking for a more expansive approach to ecosystem restoration than presently served by the CX. He pointed out that most of the Corps Planning CXs are largely virtual. There are other centers throughout the Corps, which reach outside of the Corps for external resources. He said that Dr. Ed Theriot is going to be the Corps Ecosystem Restoration Senior Executive Service (SES) leader for this Community of Practice (CoP), subset of the Environmental CoP, and would be the appropriate advocate for the Center. He will need

to identify staff support, structure of the CoP, and communication network. He asked for some ideas on virtual center and structure of the Center.

Dr. Crozier replied that the Corps is taking a very positive step. The EAB would not want to dictate structure. The Center would increase basic knowledge and outreach and could fit into the Corps internal learning organization process. The Center could also bring the Corps Environmental Operating Principles into the Regulatory program.

Dr. Reed responded that Corps is involved in ecosystem restoration across the nation and world, and needs to focus and bring its efforts together. Ms. Beverly Getzen (recently retired from the Corps) filled a very important role in coordinating the Corps efforts within and outside the organizations. The position has been empty for a while. The move to identify SES leadership is good, but the urgency to fill Ms. Getzen's position cannot be overstated.

Dr. Donahue said that the Center needs to have a physical location outside of Corps Headquarters, and Districts should have point-of-contacts.

Dr. Hackney said that there is a cadre of knowledge in the Corps, but it is not applied in a holistic view. For example, in the Cape Fear River, the Corps plans to remove some non-functioning dams, but does not address ecosystem response in context of a bigger picture and perspective. The Corps needs someone who can represent the bigger picture and bring perspective, someone who represents the environment and speak for the whole ecosystem.

Mr. Babcock indicated that a virtual center would not be a real center. The Corps needs some physical, real, support. A real center can't be turned off.

Mr. Waters said that the idea of a Center fits into the Corps strategic plan and the 12-Point Plan implementation to change Corps planning. The Center could serve as a world class knowledge center rather than as an implementation center.

LTG Strock responded that the question is not if we will, that is, we will do it. The question is how we do it. We are always fighting with limited resources. The Corps has Centers of Expertise now. Some are discretionary, and some are Mandatory. The Corps could declare this as mandatory, which means that Districts must go to them and must pay. This is very consistent with the way we are structured and how we must proceed. Sustainability of the center is important. As MG Riley has pointed out, the Center is consistent with our 12-Action Plan. The hard part is the how to implement the recommendation within existing capabilities.

LTG Strock continued saying that he appreciated EAB comments on the Corps having a leadership role. An SES leader empowered with this responsibility is an important step. The GS-15 position to make this happen is critical. Filling Ms. Getzen's position needs to be a priority. Besides responsibility, someone needs to be in charge, and there needs to be a tiered responsibility and a structure with a point-of-contact at each level, consistent with a CoP.

Mr. Babcock thanked LTG Strock for the response and replied that the EAB would assist the Corps and serve as a conduit for information transfer.

4. DISCUSSION ON ECOSYSTEM BENEFITS AND PERFORMANCE MEASURES

Mr. Babcock stated that the EAB had a draft white paper undergoing final editing on the theme of Ecosystem Benefits and Performance Measures for LTG Strock's review and feed back, and that Dr. Reed would discuss the EAB recommendations presented in the white paper.

Dr. Reed acknowledged the EAB received very helpful feedback and assistance from Corps staff (Dr. Cole, Mr. Scodari, and Ms. Cummings) in developing this paper. The EAB paper merges the performance measures and environmental benefits sub-themes tasks. The issues are very difficult to resolve, and the EAB has no silver bullets. However, the paper presents ideas to help move the Corps forward. The Corps needs to monitor field performance and use the data for performance-based budgeting. The EAB recommends that Corps emphasize hydrogeomorphic aspects of ecosystem restoration. The paper presents ideas on the hydrogeomorphic linkage. ERDC has some useful tools to help in this area. The way in the Corps describes outcomes needs to make sense to partner and stakeholders. Metrics need to reflect what the Corps is going to do and make sense. Assessments need also to recognize variables that can affect landscape (storms, climate change, etc); conceptual models help to work out these external variables. Performance measures need to be adaptable to various projects and temporal scales as well as working across regions. The Corps needs to work with other agencies, that is, in a real working group. The EAB will be transmitting its recommendation to Chief formally.

Mr. Babcock asked for an EAB motion to adopt the recommendations and forward them to the Chief. The EAB as a whole adopted the proposal without any dissent.

LTG Strock stated that the Corps looks forward to reviewing the EAB white paper. He said the Corps has adopted the Lean Six Sigma process and principles to assess Corps process efficiency and improve predictable outcomes. This EAB recommendation is consistent with that process for improving Corps authorized business outputs. He said that we was pleased to see Drs. Beth Fleming and Ed Theriot at this meeting, since both represent the Corps Environmental Laboratory, which provides good expertise to help with this process and for developing a conceptual model. A similar dilemma was faced by the Interagency Performance Evaluation Team (IPET) on the issues levee failure in New Orleans. The Corps needs to concentrate on the science first. He asked if the EAB saw the issues associated with environmental benefits and performance measures applying to the regulatory mission as well.

Dr. Reed replied yes, conceptually. The principles apply, linking processes to outcomes, and with transparency.

LTG Strock said that the Corps needs to recognize up front the applicability for mitigation and regulatory. This will become a means of measuring with our four accounts, particularly Environmental.

MG Riley said that conceptual models need work. For example, the Everglades model resolution is crude. The Corps cannot predict. We need to forecast expected outcomes. We should engineer systems for adaptation to a range of outcomes. Much work is needed to improve forecasting and engineering.

Ms. Rivers concluded this discussion saying that her brief review of the paper indicates that the concepts are within Corps grasp.

5. CORPS ACTIVITIES IN RESPONSE TO 2005 HURRICANES AND TWELVE POINTS

MG Riley stated that the Corps 12-Actions for Change represent a new paradigm for the Corps. Its implementation will require OMB and Congressional support. The Corps needs to reach out nationally and internationally for a much broader change.

LTG Strock indicated that although the 12-Points Action Plan has a Civil Works Planning point of view, the 12 points for change applies to all the Corps does.

Mr. Waters provided a slide presentation on the 12 Actions for Change, which were developed in response to the events following Hurricanes Katrina and Rita along the Gulf Coast. (The slide presentation is posted on the EAB website.) Mr. Waters discussed the Interagency Performance Evaluation Team (IPET) effort, which examined storm characteristics and how the flood reduction systems performed. He also mentioned that a Hurricane Protection Decision Chronology (HPDC) study is also being conducted. The draft report is expected to be released for public review in January 2007; preliminary major findings are consistent with IPET findings.

LTG Strock indicated that we need to understand factors leading to the process failures. The Corps has recognized its responsibilities and internal failings, and immediately initiated studies to obtain the facts. The 12 Points for Change resulted from the studies, and the Corps would like the EAB comments on its road map for change.

Mr. Babcock replied that the EAB had reviewed the Corp 12 Points and their relationship to the Corps Environmental Operating Principles. He said that the EAB applauds the Corps willingness to change.

Dr. Reed stated that the actions are a step in the right direction. The Corps has the EOP (including sustainability) and now the 12 Points, which implement sustainability. The EAB will be very interested in seeing the plan's schedule for implementation change. The 12 Points have implications for conceptual models, which are needed to address needs of navigation, flood damage reduction, as well as environment.

LTG Strock explained that the various lists (12 Points, 7 EOP, 5 campaign goals, 7 army values, etc.) are more than lists. They provide leaders, like himself, with a framework to move forward to address issues, giving an example of the Corps stand on the environment as per the Corps Environmental Operating Principles.

Dr. Kondolf cited the 12-Points, point number 9, to effectively communicate risk. In the past the Corps hasn't effectively communicated this to the public. Many people in potential areas of harm do not understand the risk, and thus the Corps needs to do more communication.

LTG Strock affirmed this point, saying that the Corps has had a difficult time attempting to eliminate the term "Flood Control" as the Corps works to reduce flood damage and provide a level of "Flood Protection." Basically, the Corps cannot control floods. Regarding risk,

Hurricane Katrina technically was Category 2 hurricane at landfall, but Katrina had a Category 4 and 5 storm surge generated offshore. The Corps needs to communicate this and that the Hurricane Category 3 level of protection by the levees was a false claim. The use of a Hurricane Category simplifies a complex weather occurrence for public understanding. Similarly the Corps needs to communicate risk in a way that the public can easily understand.

Mr. Babcock said that the one Ecosystem Restoration subtheme the EAB has not completed working on is that of communication (internal and external), related to Outreach and Partnering. The Corps 12-Points are introspective and should help the Corps to communicate better.

LTG Strock stated that the EAB had made outstanding progress on the seven Ecosystem Restoration sub themes. He understood that the Outreach and Partnering subtheme did not appear ready for review, but the EAB can help the Corps to communicate better.

6. PUBLIC COMMENT

Two individuals addressed the EAB and LTG Strock.

Mr. Billy Marchal – Flood Protection Alliance. Mr. Marchal said the alliance of 13-14 individuals from New Orleans was newly formed to bring public and private interests together to work out issues before they enter the public forum. The Alliance works behind the scenes to accomplish its goals and is not vocal or confrontational in public forums. The Alliance is working with LSU to develop a “Levee School” to provide new levee commissioners training on levee science, inspection and their responsibilities. The Alliance is working with LSU Hurricane Center on the curriculum, as well as on developing a center for flood control and wetland restoration. The Alliance will sponsor a forum and invite the Corps and its labs to participate. The first forum is expected to take place in mid-January 2007 and the first classes in summer 2007.

LTG Strock asked Dr. Reed will look into this center and report back to EAB.

Mr. Brad Droy – Environmental consultant from Baton Rouge, Toxicology and Environmental Associates, Inc. (TEA). Mr. Droy said that TEA is part of a consortium of several companies involved in ecosystem restoration in southern Louisiana. He has met with BG Creer and (Ret) LTG Joe Ballard. He asked if it was part of the Corps mission to be involved in the remediation of the damaged ecosystem. He said the potential cost is quite high. He explained that he is a fan of the Corps, because they get things done. He also asked what he should be communicating to local groups and what could be done now to speed things up?

LTG Strock said that Ms. Sherman (EAB Executive Secretary) and Ms. Rivers would follow up with Mr. Droy.

3. CLOSING REMARKS AND ADJOURNMENT

Mr. Babcock stated that this would be his last meeting serving as the Chair of the EAB. Dr Crozier will assume chair with Dr. Hackney as vice chair. He continued saying that on behalf of the board, they had been very happy to serve the Chief and that the Chief had done a great job of

laying a foundation for his successor. Mr. Babcock was very appreciative of the Chief's leadership.

LTG Strock thanked Drs. Donahue and Hullar for their service and Mr. Babcock for his leadership. He also thanked Drs. Crozier and Hackney for assuming leadership. He continued, saying that this would be his last meeting with the EAB and that transition is natural. All candidates for the next Chief have the same philosophy as him relating to the environment. General Flowers had set the foundation for him, and for the Chief that will follow. The EAB has provided some real substance for the next Chief to have to deal with. The EAB can tell us how the Corps is doing and whether or not the Corps is implementing the EOP everywhere. The Chief asked the EAB to give the Corps an opportunity to address these issues. He then asked MG Riley for the status of the Civil Works Strategic Plan.

MG Riley responded that the next Strategic Plan would be completed in 2009. He also said that the Corps will use a scenario planning approach in future initiatives including the Gulf Coast discussions.

LTG Strock recommended that the Corps embed the EAB into dynamic review in these initiatives and to follow the IPET American Society of Civil Engineers model of integrated continuous review.

MG Riley replied that the EAB will be invited to the Corps Castle forums in 2007.

LTG Strock requested the EAB to keep providing their perspectives and thanked the public for participating. There being no further business, he adjourned the meeting.